ABSTRACT

Production of secondary metabolites in plant tissue cultures

The goal of this study is to determine the influence of sodium molybdate and sodium tungstate as elicitors on production of scopoletin in cell suspension culture of *Angelica archangelica* L. The culture was grown in a liquid culture medium Murashige and Skoog on a roller apparatus in the dark and light. The content of scopoletin was in cells and in the culture medium determined by high performance liquid chromatography with fluorometric detection. The results show that sodium molybdate served as an elicitor to the production of scopoletin positively, application of sodium tungstate did not increase scopoletin production in any case. The highest production of scopoletin after application of sodium molybdate versus the control cells was reached in the suspension culture of *Angelica archangelica* L. cultured in the dark at a concentration of 25,50 mg/l. Scopoletin content increased by 166,7 %. After application of sodium tungstate the production always decreased, in the medium of a suspension culture of *Angelica archangelica* L. cultivated in the light at a concentration of 66.00 mg/l, the production decrease was by up 62,5 %.